in the frog, these fibres cannot belong to pyramidal tracts. This result is incomplete and further results in the study of localization are expected by refinements of this method, and by applying it to the cord and perhaps even to the medulla of mammals.

Note on the Special Liability to loss of Nouns in Aphasia. By MARY PUTNAM JACOBI, M. D. Journal of Nervous and Mental Disease. N. Y., Feb., 1887.

From the record of one hundred and sixteen cases seventeen were found by the author to have lost only the memory or the power to employ nouns. Children are often said to learn nouns first, and they should therefore be most deeply organized, and, on the commom theory of devolution, the last to disappear. The records of autopsies shed no light on partial as distinct from total aphasia. Hence the author turns to the great discussions which have raged about the psychology of the naming process. Of course ideas are not held from the author's standpoint to have anything archetypal about them in the sense of Plato or the scholastic realists, but to be gradually formed by the fusion of visual, tactual and other impressions. For this product the terms *conception* and even *mental image* may be used by alienists so strictly as to realize the ever-lurking danger of realistic tendencies. The author agrees with Hughlings Jackson that a method which is founded on classifications which are partly anatomical and physiological, and partly psychological, confuses the real issues, and with Whitney that a word is simply the survival of the fittest among a variety of resources (gestures, etc.) for effecting the same purpose, viz.: fixing the mental attributes of an object, but prefers to use molecular and anatomical methods and terms, and considers that physiology on the whole favors nominalism. The author infers that the reason nouns are likely to be lost first and easiest in progressive aphasia is because they are most easily replaced by visual images, and adds in the last paragraph that it had been "suggested by a friend" that abstract nouns ought to be longest retained, and concludes that it would be interesting to test this suggestion. The suggestion has been made before, but not that we remember tested. If true, it does not seem to us sufficient to account for those strange cases of what Gairdner calls "brain intoxication for one word," at least not for those rare cases in which neither showing the object nor repeating the name will enable the patient to utter the name, where in Kussmaul's phrase the impressive as well as the expressive tract is interrupted. Is it not as possible that in the cases of those persons who forget or cannot speak their own names or that of their friends, or place of residence, but still use abstract and more recently acquired terms, the former have become more automatic or relegated to lower or more isolated centres, and are less widely irradiated by association, and so can be more cleanly eliminated by focal lesions. The author's treatment of the subject is at least broad and suggestive.

The Human Color-sense Considered as the Organic Response to Natural Stimuli. Journal of Ophthalmology. September, 1866.

Retinal Insensibility to Ultra-violet and Infra-Red Rays. Ibid. December, 1886. L. WEBSTER FOX, M. D. and GEO. M. GOULD, A. B.

The worship of sun, light and fire is the theological, the theory of either waves and specific energy of retinal fibres is the metaphysical stage in the study of light. But no study of phenomenon

is now complete without the psychological processes involved in knowing them are included, and it is by thus extending the scope of relations that the third or positive stage of knowledge is reached. Retinal processes in color-perception are at root fine perceptions of thermal differences. Under the theory of specific energy the mind's work was given the eye to do. Color is then, *in toto*, a psychological phenomenon. The reason why the so-called primary colors stand out so distinctly in the regularly differentiated spectrum is because first, gold, fire and light have always attracted great attention, and these rays are nearly half the whole. They symbolize reason. Secondly, green represents about one-fourth the rays, and stands for the vegetable world, which symbolizes utility and labor. Thirdly, red is war and love. It appears in blood and is associated with all its symbolisms. Fourthly, blue is the sky, remote, of feeble intensity, and typifying spiritual life, duty and religion.

In the second paper, it is urged that the limitations in the range of color-perception at both ends of the spectrum, and the coincidence of its intensity with the thermal intensity of the spectrum, is because the supply of infra red rays is weak and inconstant (as is shown by a reproduction of Langley's bolometric curves), and such power would indefinitely complicate the retinal and cerebral mechanism, and because finer discriminations within the imposed limits will be more useful to men. The authors write with a wide and suggestive range of reference and allusion to which justice cannot here be done, and one is often reminded of the "etherism" of the late Phillip Spiller. Both articles are disfigured by a number of misprints.

School-Training of the Insane. By J. G. KIERNAN, M. D., Alienist and Neurologist. October, 1886.

At an early period school-teaching was introduced into some American asylums. Thirty years ago Dr. Brigham thought great advantages had resulted from winter classes in the Utica Asylum. Writing, drawing, painting, mathematics and modern languages were taught, and even a journal was published by the inmates of a well-known asylum. It was thought to beguile the melancholy, occupy those who had recovered but lingered at the asylum for fear of a relapse, support those tending to dementia, and to help the convalescent. Need of fit mental occupation was felt to be one of the most pressing wants of insane hospitals. Dr. J. P. Gray and his school, starting from the correct premise that insanity was the expression of a physical disease, wrongly inferred that moral treatment was useless, and largely through their influence moral treatment fell into disuse. In many European asylums instruction, sometimes mental, sometimes by special teachers, was quite often found salutary for diversion and exercise, till under the influence of the extreme somatic school of Jacobi they declined everywhere, save in Ireland. Dr. Lalor's systematic plan, carried out in the Dublin Insane Hospital, where six regular teachers were employed, has met with wide approval, especially to relieve the gloomy monotony of county asylums. In many cases, especially those of *folie avec conscience*, vigorous healthy conceptions of an intelligent teacher or attendant, no doubt do tend to the recovery of patients, and the closer the contact the stronger the influence. Even Krafft-